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UNITED STATES DEPARTMENT OF AGRICULTURE.

Department Circular 124.

Bureau of Plant Industry
(New and Rare Seed Distribution),
WM. A. TAYLOR, Chief.

SPUR FETERITA.

OBJECT OF THE DISTRIBUTION.—The distribution of new and rare seeds has for its object the dissemination of new and rare crops, improved strains of staple crops, and high-grade seed of crops new to sections where the data of the Department indicate such crops to be of considerable promise. Each package contains a sufficient quantity for a preliminary trial, and where it is at all practicable the recipient is urged to use the seed for the production of stocks for future plantings. It is believed that if this practice is followed consistently it will result in a material improvement in the crops of the country.

HISTORY AND DESCRIPTION.

Feterita was brought to the United States from Alexandria, Egypt, in November, 1906, and was later obtained from the Sudan, where it is commonly grown under the name of feterita. As it is a member of the group of sorghums called durra, the name "Sudan durra" has also been applied to it.

Feterita is an early-maturing sorghum of considerable promise, both for grain and forage. It has rather slender stems 5 to 7 feet high, which are semijuicy and slightly sweet before ripening and only fairly leafy. The stems are of irregular height, owing to the plant's stooling and branching habit, which also results in some unevenness in maturity.

Feterita resembles milo in habit, except that the heads are uniformly erect and the seeds are larger and softer as well as bluish white in color. The seed tends to shatter if it is allowed to stand in the field until overripe.

Feterita matures about the same time as Dwarf milo and about three weeks earlier than Blackhull kafir. In drought resistance it compares favorably with any sorghum yet introduced. Yields of 20 to 50 bushels per acre may be expected under ordinary conditions in the kafir and milo region.

Spur feterita is a new and distinct variety developed by the Texas Agricultural Experiment Station at substation No. 7, Spur, Tex., by Mr. R. E. Dickson, in charge of the work at that station. In 1914 a

large number of individual plants were selected from a field of ordinary feterita (T. S. No. 40; S. P. I. No. 19517) and the heads carefully bagged. Succeeding tests with these selections, in which bagging was practiced, showed the superiority of certain individuals over others with reference to yield, leafiness, strength of stalk, and other characters. Spur feterita is one of these superior selections from which the seed was increased in isolated fields in 1917, 1918, and 1919.

Spur feterita is more stocky than the common feterita, being more dwarf in stature and with a heavier stalk. This stockiness is of considerable importance, as the plant is much less likely to lodge or fall down than the common feterita. It carries one-third more leaves than the common feterita, and these leaves are longer and broader. In maturity it is a few days later than the common unselected strain. Spur feterita is sufficiently different from the common feterita in the characters mentioned to be recognizable as a distinct variety. At Spur, Tex., in 1916 it produced 8 bushels and in 1917 10 bushels per acre more than the common sort.

PLANTING.

Feterita should be planted three or four weeks later than Indian corn. The softness of the seed and its quick absorption of water make it more susceptible to decay before germination than other grain sorghums when planted in cold soil. For the reason stated seeding should be delayed until the soil is thoroughly warm. Early planting is desirable in sections infested by the sorghum midge, and in such cases where the crop is planted in ground that is not thoroughly warm the seeding should be thick. Feterita is generally planted in lister furrows, but is sometimes surface planted with an ordinary corn planter. The lister method of planting is preferable in the semiarid sections. Feterita should be planted in rows 36 to 42 inches apart, and where thus planted 5 to 7 pounds of seed will be required to the acre. It is possible with seed of high germination, when the seed bed is well prepared and the soil is thoroughly warm, to secure a fair stand from $1\frac{1}{2}$ pounds of seed to the acre. In planting the Spur feterita every advantage in the way of seed-bed preparation, warm soil, etc., should be taken in order to plant as large an area as possible with the limited quantity of seed received.

CULTIVATION.

Feterita should be cultivated much the same as Indian corn. It may be given two or three harrowings while the plants are small, and as soon as sufficient growth is made the crop should have a fairly deep and thorough cultivation. Two or three subsequent and shallower cultivations are desirable. Late cultivations must be shallow, to avoid breaking the surface roots.

HARVESTING.

For combined utilization as forage and grain the crop should be cut in the late dough stage. When planted in rows the crop can best be handled with a corn harvester and put in shocks of 20 to 30 bundles each. If these shocks are allowed to stand for some time before being headed, it will allow more complete maturity of the heads arising from the stools. Where the crop is intended solely for grain, it should be allowed to stand until the earliest heads are fully matured; but it must not be left until all the heads are fully ripe, else considerable seed may be lost through shattering. Where the heads are cut off in the field it is best to pasture the remainder of the crop. Should the crop go down on account of a storm before it is harvested, it can be utilized by pasturing with hogs or cattle.

FEEDING.

The forage value of Spur feterita is equal or superior to that of milo. For strictly forage purposes it is perhaps excelled both by the kafirs and the sweet sorghums. The heavy production of grain, however, makes it effective when fed in the bundle, heads and all, to work horses or stock cattle. For fattening cattle or sheep it can also be fed in this manner with good results, but hogs should always be kept in the feed lot to pick up the undigested and scattered grain. It is not as valuable for dairy cows as for the classes of stock just mentioned. In feeding value feterita silage will be found equal to any of the sorghums. As a grain it will probably rank along with the kafirs and milos, 10 bushels of it being considered equal to 9 bushels of shelled Indian corn. The addition of a small quantity of cotton-seed meal or other concentrate high in fat will greatly increase its effectiveness as a flesh producer.

SEED PRODUCTION.

It is recommended that the seed of Spur feterita be planted in a field wholly isolated from fields of ordinary feterita and other sorghums. It should be borne in mind that this particular lot of seed represents the progeny of a superior individual plant and must be kept pure if the grower is to benefit by it. If planted near other sorghum fields it will mix with them by cross-pollination and lose its superiority. Therefore, the greatest care should be exercised in planting this seed, so that any increased quantity secured will be suitable for planting a large acreage the succeeding year. The field should preferably be planted on land not used for growing sorghum of any variety the previous year, and in any event volunteer plants should be removed from the field before they have headed, or at least before they have blossomed.

SUGGESTIONS.

Spur feterita should be carefully compared with crops of the common feterita, Dwarf milo, and similar grain sorghums. Extraordinary yields are not to be expected, but under ordinary conditions it is believed that it will prove more productive than the common feterita.

JUNE 8, 1920.



